

# CURRICULUM VITAE OF RICK STEVENS

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## MAJOR APPOINTMENTS

Argonne National Laboratory  
Deputy Associate Laboratory Director for Physical, Biological and Computing Sciences, 1998-2000  
Director, Mathematics and Computer Science Division, 1991-present  
University of Chicago Computer Science Department  
Professor, 1999-Present

## PREVIOUS POSITIONS

Argonne National Laboratory  
Director, High-Performance Computing and Communications Program, 1985-present  
Leader, Computing and Communications Futures Laboratory, 1985-present  
Manager, Advanced Computing Research Facility, 1985-1991  
Associate Division Director, August-December 1991  
Western Michigan University, 1983-1984  
Systems Programmer  
President, Auriga Software Company, 1982-1985  
Argonne National Laboratory, 1982-1983  
Resident Associate  
Western Michigan University, 1981-1982  
Analyst/Programmer, Department of Biological Sciences  
McPartlin & Associates, Inc., 1980-1981  
Analyst/Programmer  
Michigan State University, 1978-1980  
Applications Programmer, College of Natural Science

## EDUCATION

Northwestern University  
Ph.D. courses in computer science (1986-1990)  
University of Illinois at Urbana  
MS, Ph.D. courses in applied mathematics, physics, computer science (1984-1985)  
Western Michigan University  
BS, Applied Mathematics and Philosophy (1981-1984)  
Michigan State University  
Major: Physics and Computer Science (1978-1980)

## PROFESSIONAL SOCIETIES

American Association for the Advancement of Science  
Association for Automated Reasoning  
Association for Computing Machinery  
Association for Symbolic Logic  
IEEE Computer Society

## AWARDS

Named by *Crain's Chicago Business* to Forty under Forty, 1994

## PROFESSIONAL ACTIVITIES AND PROGRAM ORGANIZING COMMITTEES

Concurrent Supercomputing Consortium (Founding Member), 1991  
Critical Technologies Research-Information and Communications (LBL), Group Leader, 1992  
Workshop on Systems Software/Tools for HPC Environments, Program Committee, April 14-17, 1992  
Computational Sciences Program, Louisiana State University, Advisory Committee, 1993  
1993 High-Performance Computing Symposium, Co-Chairman, (March 28-April 2, 1993), 1993  
Center for Research on Parallel Computation, Executive and Facilities Committee, 1993-  
Supercomputing '93, Poster Exhibit Chairman & Tutorials Committee, November 15-19, 1993  
Workshop/Conference on GCAs and Software Technology, Program Committee, May 1-8, 1993  
IBM's Highly Parallel Supercomputing Laboratory, Technical Advisory Board, 1993-94  
1994 High Performance Computing Symposium, Co-Chairman, (April 11-15, 1994), 1994  
Workshop on Enabling Technologies for Petaflops Computing Systems, Assoc. Chair, February 22-24, 1994  
Los Alamos CIC Division Review Committee, 1994-1997  
SIGGRAPH '94, VROOM Jury, July 24-29, 1994  
Argonne National Laboratory, Director's Search Advisory Committees, 1995 and 1998  
ESnet Steering Committee, 1995-present  
1995 Petaflops Computing Summer School Workshop, Organizer, August 14-23, 1995  
National HPCC Software Exchange Program, Executive Committee Member, 1995  
Supercomputing '95, Info-Architecture Co-Chair, December. 3-8, 1995  
DOE2000 Collaboratory Pilot Project Steering Committee, 1996  
5th IEEE International Symposium on High Performance Distributed Computing, Focus Workshop on  
Multimedia and Collaborative Environments, Program Committee, August 6-9, 1996  
Federal Internet Privacy and Security Workshop, Program Committee, May 20-21, 1996  
PAWS '96 - PetaFLOPS Architecture Workshop, Program Committee, April 22-25, 1996  
Petasoft '96 Study on System Software, Organizing Committee, June 16-21, 1996  
6th Symposium on the Frontiers of Massively Parallel Computation, Program Vice-Chair, October 27 - 31, 1996  
Sidney Fernbach Award Subcommittee, 1996  
NSF Symposium on Virtual Reality in Manufacturing, Research & Education, Advisory Committee  
Member, October 7-8, 1996  
Tele-Immersion Workshop, Co-Chair, October 23-24, 1996  
6th IEEE International Symposium on High Performance Distributed Computing, Program Committee,  
August 5-8, 1997  
6th Heterogeneous Computing Workshop (HCW 97), Program Committee, April 1, 1997  
Workshop on PetaFLOPS Software Models, Organizing Committee, January 28-29, 1997  
DOE ASCI-ASAP, Executive Committee Member, 1997  
NSF PACI, Executive Committee Member, 1997  
SIAM ParaPro Conference, Organizer, minisymposium, March 14-17, 1997  
7th IEEE International Symposium on High Performance Distributed Computing, Program Committee, 1998  
11th International Parallel and Distributed Computing Systems, Chairman, (Sept. 2-4, 1998), 1998  
POWR Workshop (Petaflops Systems Operations Working Review), Program Committee, June 2-5, 1998  
Adjunct ANL Representative, SLCC (System for Labs Computing Coordinating Committee), 1998  
Hybrid Technology Multithreaded Computer Architecture for Petaflops Computing (HTMT),  
Advisory Committee, 1998  
DOE-ER Computational Sciences Core Working Group, Committee Member, 1998  
State of the Fields Sessions, Supercomputing '98, Chair, November 8-13, 1998  
International Parallel Processing Symposium (IPPS 98), Program Committee, March 30-April 3, 1998  
Deep Computing Institute, IBM Research (member, Executive Board), 1999  
2nd Conference on Enabling Technologies for Petaflops Computing, 1999  
7th Symposium on the Frontiers of Massively Parallel Processing Frontiers '99, Program Committee, 1999  
8th IEEE International Symposium on High Performance Distributed Computing, 1999  
Lawrence Berkeley National Laboratory, Director's Review of Computing Science, May 25-26, 1999  
University of New Mexico, Computer Science Advisory Committee, 1999  
Distributed Applications Support Team (DAST) of the National Laboratory for Applied Network  
Research (NLANR), External Advisory Committee, 1999  
Supercomputing '99, Technical Papers Committee, November 13-19, 1999

VA Linux Systems Advisory Council, 1999  
 Los Alamos Computer Science Institute, Executive Committee Member 1999  
 Distinguished Research & Economic Development Advisory Board, Indiana Pervasive Computing Research Initiative, Member, 1999-present  
 Open Source Software for HPC PITAC Subcommittee, Committee Member, 1999-present  
 National Computational Science Alliance, Chief Architect, 2000  
 Lawrence Berkeley National Laboratory, Director's Review of Computing Science, April 12-13, 2000  
 Chair of the NSF STAR TAP International Advisory Committee, March 2000  
 Supercomputing in Nuclear Applications (SNA2000), Program Committee, 2000  
 HPDC2000, Program Committee, 2000  
 Ad Hoc Committee on Computation at the University of Chicago, October 2000 to present  
 Science, Technology, And Research Transit Access Point (STAR TAP) International Advisory Committee (Chair, March 2000)  
 Global Grid Forum Advisory Committee, October 2000  
 Advisory Board for Insors Communications, 2000  
 Advisory Board for VRCo, 2000  
 Strategic Planning Group for Center for Study of Life in the Universe at the SETI Institute, 2000

#### **SHORT COURSES OR TUTORIALS**

Argonne National Laboratory, 1986-1991, Parallel Programming Workshops  
 University of Illinois at Urbana, Fall 1984  
 Computer Organization and Assembly Language Programming University Of Vienna, 1982  
 Summer School in Computational Chemistry  
 Michigan State University, Summer 1980  
 NSF Summer Student Research Program: Problem Solving and Pascal  
 Lansing Community College, Department of Computer Science, Spring 1980  
 Introduction to Data Processing  
 Tutorial – Supercomputing 94, November 18, 1994  
 Tutorial – IEEE 1996 Virtual Reality Annual International Symposium, March 31, 1996  
 Tutorial – Supercomputing 96, November 18, 1996  
 Tutorial – HPC Asia 97, April 28, 1997  
 Tutorial – IEEE Computer Graphics and Applications, Fall 2000, “Tiled Display Systems”

#### **FEDERAL PANELS AND SITE VISITS**

DOE Grand Challenge Applications, 1992  
 NIH National Biomedical Computing, 1993  
 DARPA Scalable I/O, 1993  
 NIH Review Board, 1992-1994  
 Jet Propulsion Laboratory Review Board, 1994  
 NSF Center for Research in Parallel Computations, 1994  
 NSF Supercomputer Centers, 1994  
 DOE/MICS HPCAC B&F Review, 1995  
 NASA National High Performance Software Exchange, 1995  
 NSF Opportunities in Support of Multidisciplinary Research, July 26-28, 1995  
 NSF Program Plan Review Panel (PPRP), Fiscal Year 1996-1997  
 DOE ASCI ASAP Site Visit, May 23-24, 1997  
 NSF PACI Site Review, Sept. 1-3, 1998  
 PITAC Scalable Information Infrastructure Panel Overview, Washington, DC, November 1998  
 PITAC NGI Subcommittee, Germantown, MD, October 6, 1999

#### **CURRENT AND PREVIOUS RESEARCH GRANTS**

Co-Principal Investigator, CSCC Scalable I/O Initiative and National Scalable I/O Laboratory  
 Mathematical Information and Computational Sciences, DOE-MICS  
 Center for Research on Parallel Computation, NSF, 1990-1998

Toward a Persistent I-WAY, DARPA, 1996 – 1999  
 ANL/University of Chicago Resource Center for Computational Science, DOE, 1995 – 1997  
 Multi-institutional Mass Storage System, NSF, 1995-1997  
 National Software Exchange for High-Performance Computing and Communications, NASA, 1995-1999  
 Partnerships for Advanced Computational Infrastructure, NSF, 1997 – 2002  
 ASCI-Advanced Visualization Technology Center, DOE-DP  
 Hybrid Technology Multithreaded Computer Architecture for Petaflops  
 Computing, Jet Propulsion Laboratory, 1997-2000

## BOOKS AND BOOK CHAPTERS

1. J. Boyle, R. Butler, B. Glickfeld, T. Disz, E. Lusk, R. Overbeek, J. Patterson, and R. Stevens, *Portable Programming for Parallel Processors*, Holt, Winston, and Reinhart, New York, 1987
2. T. DeFanti and R. Stevens, "Teleimmersion," In *The Grid: Blueprint for a Future Computing Infrastructure*, pages 131-155. Morgan Kaufmann Publishers, 1999

## REFEREED JOURNAL ARTICLES AND CONFERENCE PROCEEDINGS

### Journal Articles

1. R. Stevens, "Some Experiments in Nonassociative Ring Theory with an Automated Theorem Prover," *Journal of Automated Reasoning* 3, no. 2 (1987) 211-221
2. T.-C. Wang and R. Stevens, "Solving Open Problems in Right Alternative Rings with Z-Module Reasoning," *Journal of Automated Reasoning* 5, no. 2 (1989) 141-165
3. I. Foster, W. Gropp, and R. Stevens, "The Parallel Scalability of the Spectral Transform Method," *Monthly Weather Review* 120, no. 5 (May 1992) 835-850
4. R. Stevens, "High-Performance Computing and Communications," *Future Generation Computer Systems* 10 (1994) 159-167
5. Shirley Browne, Jack Dongarra, Stan Green, Keith Moore, Tom Rowan, Reed Wade; Geoffrey Fox, Ken Hawick; Ken Kennedy, Jim Pool, Rick Stevens, Bob Olsen, Terry Disz,, "Research and Knowledge Transfer Focus: National HPCC Software Exchange," *Parallel Computing Research* 3, no. 2 (Spring 1995) 8-9, 12-13
6. A. Choudhary, I. Foster, and R. Stevens, "Multimedia Applications and High-Performance Computing," guest editors, *IEEE Parallel and Distributed Technology* 3, no. 2 (summer 1995) 2-3
7. T. L. Disz, R. Evard, M. W. Henderson, W. Nickless, R. Olson, M. E. Papka, and R. Stevens, "Designing the Future of Collaborative Science: Argonne's Futures Laboratory," *IEEE Parallel and Distributed Technology* 3, no. 2 (summer 1995) 14-21
8. V. E. Taylor, M. Huang, T. Canfield, R. Stevens, D. Reed, S. Lamm, "Performance Modeling of Interactive, Immersive Virtual Environments for Finite Element Simulations," *International Journal of Supercomputing Applications* 10, no. 2 (spring/fall 1996) 145-156
9. R. J. Harrison, M. F. Guest, R. A. Kendall, D. E. Bernholdt, A. T. Wong, M. Stave, J. L. Anchell, A. C. Hess, R. J. Littlefield, G. L. Fann, J. Nieplocha, G. S. Thomas, D. Elwood, J. Tilson, R. L. Shepard, A. F. Wagner, I. T. Foster, E. Lusk, and R. Stevens "Toward High-Performance Computational Chemistry: II. A Scalable SCF Program," *Journal of Comp. Chem.* 17, no. 1 (1996) 124-132
10. V. E. Taylor, R. Stevens, and K. Arnold, "Parallel Molecular Dynamics: Implications for Massively Parallel Machines," *Journal of Parallel and Distributed Computing*, 45, no. 2 (September 1997) 166-175
11. T. A. DeFanti, I. Foster, M. E. Papka, R. Stevens, and T. Kuhfuss, "Overview of the I-WAY: Wide Area Visual Supercomputing," *International Journal of Supercomputer Applications and High Performance Computing*, 10, no. 2 (spring/fall 1996) 123-131
12. V. E. Taylor, J. Chen, M. Huang, T. Canfield, and R. Stevens, "Immersive Visualization of Finite Element Simulations: Identifying and Reducing the Critical Lag Components," *IEEE Computer Graphics and Applications*, July 1996, pp. 42-43
13. T. A. DeFanti, M. D. Brown, and R. Stevens, "Virtual Reality over High-Speed Networks," *IEEE Computer Graphics and Applications*, July 1996, pp. 44-48
14. R. Stevens, P. Woodward, T. DeFanti, and C. Catlett, "From the I-WAY to the National Technology Grid," *Communication of the ACM*, 40, no. 11 (November 1997) pp. 51-60
15. R. Rosner, A. Calder, J. Dursi, B. Fryxell, D. Q. Lamb, E. Lusk, J. C. Niemeyer, K. Olson, P. Ricker, R. Stevens, F. X. Timmes, J. W. Truran, H. Tufo, Y.-N. Young, and M. Zingale, "Flash Code: Studying Astrophysical Thermonuclear Flashes," *Computing in Science and Engineering*, 2, no. 2 (March/April 2000)

16. M. Hereld, I. Judson, and R. Stevens, "Introduction to Building Projection-based Tiled Display Systems," *IEEE Computer Graphics and Applications*, pages 22-28, Vol. 20, no. 4, Spring/Summer 2000.
17. A. Choudhary, M. Kandemir, J. No, G. Memik, X. Shen, W. Liao, H. Nagesh, S. More, V. Taylor, R. Thakur, and R. Stevens, "Data Management for Large-Scale Scientific Computations in High Performance Distributed Systems," *Cluster Computing* 3, no. 1 (2000) pp. 45-60.

### **Proceedings**

1. R. L. Stevens, "Challenge Problems from Nonassociative Rings for Theorem Provers," *Lecture Notes in Computer Science*, Vol. 310, ed. E. Lusk and R. Overbeek, Springer-Verlag, New York, 1988, pp. 730-734
2. R. Butler, T. Disz, E. Lusk, R. Overbeek, and R. Stevens, "Scheduling OR-Parallelism: An Argonne Perspective," *Logic Programming*, ed. R. A. Kowalsky and K. A. Bowen, The MIT Press, Cambridge, 1988, pp. 1590-1605
3. E. Lusk, R. Butler, T. Disz, R. Olson, R. Overbeek, R. Stevens, D. H. D. Warren, A. Calderwood, P. Szeredi, S. Haridi, P. Brand, M. Carlsson, A. Ciepielewski, and B. Housman, "The Aurora OR-Parallel Prolog System," *Proceedings of the International Conference on Fifth Generation Computer Systems*, 1988, pp. 819-840
4. R. Stevens and P. McDonough, "Low-Level Instruction Timing and Message Passing Performance of the Connection Machine 2," *Proceedings of the 4th International Conference on Hypercube Concurrent Computers*, Monterey, 1989
5. I. Foster and R. Stevens, "Parallel Programming with Algorithmic Motifs," *Proceedings of the International Conference on Parallel Programming*, Pennsylvania State University Press, 1990
6. L. Wos, S. Winker, W. McCune, R. Overbeek, E. Lusk, R. Stevens, and R. Butler, "Automated Reasoning Contributes to Mathematics and Logic," *Proceedings of the 10th International Conference on Automated Deduction*, in *Lecture Notes in Artificial Intelligence*, Vol. 449, ed. M. E. Stickel, Springer-Verlag, Berlin, 1990, pp. 485-499
7. R. Stevens, "Computational Science Experiences on the Intel Touchstone DELTA Supercomputer," *Proceedings of the IEEE CompCon '92*, 1992
8. R. Stevens, "High-Performance Computing and Communications," *High-Performance Computing and Networking*, University of Amsterdam, May 1993
9. J. B. Drake, R. E. Flannery, D. W. Walker, P. H. Worley, I. T. Foster,
10. J. G. Michalakes, R. L. Stevens, J. J. Hack, and D. L. Williamson, "The Message-Passing Version of the Parallel Community Climate Model," *Parallel Supercomputing in Atmospheric Sciences*, World Scientific, 1993, pp. 500-513
11. M. Henderson, W. Nickless, and R. Stevens, "A Scalable High-Performance I/O System," *Scalable HPCC Computer Conference (SHPCC)*, Knoxville, TN, May 1994
12. V. Taylor, R. Stevens, and K. Arnold. "Parallel Molecular Dynamics: Communication Requirements for Massively Parallel Machines," *Frontiers '95*, Feb. 6-9, 1995
13. V. E. Taylor, R. Stevens, and M. Kandaswamy, "A Case Study of Interactive, Immersive Visualization for Scientific Environments," *PetaFLOPS Workshop at the Frontiers Conference*, 1995
14. R. Stevens and V. E. Taylor, "Strategic Applications for Peta(FL)OPS Computational Systems," *PetaFLOPS Workshop at the Frontiers Conference*, 1995
15. T. Disz, M. Papka, R. Stevens, M. Pellegrino, and V. Taylor. "Virtual Reality Visualization of Parallel Molecular Dynamics Simulation," *Proceedings of the 1995 Simulation MultiConference*, Simulation Councils, Inc., 1995, pp. 483-487
16. C. E. Thomas, Jr., J. S. Cavallini, G. R. Sweeryniak, R. J. Aiken, T. A. Kitchens, D. A. Hitchcock, M. A. Scott, L. C. Welch, R. J. Aiken, and R. L. Stevens, "Virtual Laboratories: Collaborative Environments and Facilities On-Line," *IEEE Real-Time '95 Conference*, 1995
17. R. Stevens, "Exploiting the Information Superhighway," *The 1995 Gordon Research Conference on High-Performance Computing and National Information Infrastructure*, Plymouth, New Hampshire, July 17, 1995
18. V. E. Taylor, R. Stevens, T. Canfield, "Performance Models of Interactive, Immersive Visualization for Scientific Applications," *Proceedings of the International Workshop on HPC for Computer Graphics and Visualization*, Swansea, U.K., July 3-4, 1995
19. T. L. Disz, M. E. Papka, M. Pellegrino, and R. Stevens, "Sharing Visualization Experiences among Remote Virtual Environments," *Proceedings of the International Workshop on HPC for Computer Graphics and Visualisation*, Springer-Verlag, 1995, pp. 217-237

20. M. Papka, T. Disz, R. Stevens, M. Pellegrino, and V. E. Taylor, "Virtual Reality Visualization of Parallel Molecular Dynamics Simulations," *Proceedings of the High Performance Computing Conference*, 1995
21. R. Stevens, "Wide-Area Multimedia Supercomputing," *RISC in 1995*, Thomas J. Watson Research Center, Yorktown Heights, NY, November 7, 1995
22. J. Chen, "Toward Real-time Interactive Virtual Prototyping of Mechanical Systems: Experiences Coupling Virtual Reality with Finite Element Analysis," *High Performance Computing Conference*, 1996
23. I. Foster, M. E. Papka, and R. Stevens, "Tools for Distributed Collaborative Environments: A Research Agenda," *5th IEEE International Symposium on High-Performance Distributed Computing (HPDC-5)*, Syracuse, NY, August 6-9, 1996
24. V. E. Taylor, J. Chen, T. Canfield, and R. Stevens, "A Decomposition Method for Efficient Use of Distributed Supercomputers for Finite Element Applications," *Proceedings of the IEEE International Conference on Application-Specific Systems, Architectures and Processors*, IEEE, pp. 12-24, 1996
25. M. E. Papka and R. Stevens, "UbiWorld: An Environment Integrating Virtual Reality, Supercomputing and Design," *Proceedings of the Fifth IEEE International Symposium on High Performance Distributed Computing (HPDC-5)*, Syracuse, New York, August 6-9, 1996, pp. 306-307
26. T. DeFanti, R. Stevens, C. Catlett, R. Butler, M. Brown, T. Kuhfuss, and A. Kassem, "From the I-WAY to the Chicago STAR TAP," *Proceedings of the INET 97*, Kuala Lumpur, June 24-27, 1997
27. T. Disz, I. Judson, R. Olson, and R. Stevens, "The Argonne Voyager Multimedia Server," *Proceedings of the 6th IEEE International Symposium on High-Performance Distributed Computing - HPDC97*, August 1997, pp. 71-80
28. Terrence Disz, Robert Olson, and Rick Stevens, "Performance Model of the Argonne Voyager Multimedia Server," *Proceedings of the 11th International Conference on Application-Specific Systems, Architectures, and Processors (ASAP'97)*, Zurich, July 1997, pp. 316-327
29. R. Stevens, "High-Performance and Parallel I/O Systems for Scientific Computing," organizer, minisymposium, *SIAM ParaPro Conference*, Minneapolis, MN, March 15, 1997
30. L. Childers, T. Disz, M. Hereld, R. Hudson, I. Judson, R. Olson, M. E. Papka, J. Paris, and R. Stevens, "ActiveSpaces on the Grid: The Construction of Advanced Visualization and Interaction Environments", *Proceedings of The Seventh Annual PDC Conference, "Simulation and Visualization on the Grid"*, December 1999, Eds. B. Engquist, L. Johnsson, M. Hammill, F. Short, *Lecture Notes in Computational Science and Engineering*, Volume 13, Springer-Verlag, pp. 64-80.
31. L. Childers, T. Disz, R. Olson, M. Papka, R. Stevens, and T. Udeshi, "Access Grid: Immersive Group-to-Group Collaborative Visualization," *Proceedings of the Fourth International Immersive Projection Technology Workshop*, June 19-20, 2000 (**Submitted.**)
32. M. Hereld, I. Judson, J. Paris, and R. Stevens, "Developing Tiled Projection Display Systems," *Proceedings of the Fourth International Immersive Projection Technology Workshop*, June 19-20, 2000 (**Submitted.**)

#### REPORTS

1. R. L. Stevens, "The Interesting Future of Supercomputing," MCS-P110-1189 (November 1989)
2. L. Wos, S. Winker, W. McCune, R. Overbeek, E. Lusk, R. Stevens, and R. Butler, "OTTER Experiments Pertinent to CADE-10," ANL-89/36, February 1991
3. I. Foster, M. Henderson, and R. Stevens, organizers, "Proceedings of the Workshop on Data Systems for Parallel Climate Models, July 15-16, 1991," ANL/MCS-TM-169, September 1992
4. R. Stevens, "Information and Computing Technologies," *Critical Technologies Research: Opportunities for DOE*, National Workshop Report PUB-714, December 1992, pp. 67-75
5. J. Michalakes and R. Stevens, "Analysis of Computational Load Distribution in the NCAR Community Climate Model," CHAMMP Pilot Project Final Report, U.S. Department of Energy, May 1992
6. C. Cruz-Neira, T. A. DeFanti, R. Langley, R. Stevens, and P. A. Bash, "VIBE: A Virtual Biomolecular Environment for Interactive Molecular Modeling," Argonne National Laboratory preprint, October 1994
7. R. J. Aiken, R. A. Carlson, I. T. Foster, T. C. Kuhfuss, R. L. Stevens, and L. Winkler, "Architecture of the Multi-Modal Organizational Research and Production Heterogeneous Network (MORPHnet)," ANL-97/1, January 1997

#### OTHER PUBLICATIONS

1. R. L. Stevens, "The I-WAY and the Future of Distributed Computing," guest editorial, *Parallel Computing Research, CRPC Newsletter* 3, no. 4 (fall 1995), 2

## PRESENTATIONS AND INVITED TALKS 1992-PRESENT

### (OTHER THAN THOSE PUBLISHED IN CONFERENCE PROCEEDINGS)

1. "High Performance Computing," CompCon Conference, San Francisco, CA, February 27, 1992
2. "Massively Parallel Processing Systems," Cray, Minneapolis, MN, March 9-10, 1992
3. "Computational Chemistry and Biophysics," Scientific Computing Staff and OHER, Germantown, MD, June 12, 1992
4. "Research and Parallel Programming," Ithaca, NY, July 24, 1992
5. "High Performance Computing," DOE AESOP Conference, Oak Ridge, TN, August 18-21, 1992
6. "Computational Science and High Performance Computing," Lawrence Livermore National Laboratory, Livermore, CA, October 12-14, 1992
7. "High Performance Computing at Argonne," 1993 HPSI Kickoff, February 18, 1993
8. "Survey of High-Performance Computing Architectures and Support for Computational Chemistry," HPPC Joint (NIH and PNL) Workshop, National Institutes of Health, Bethesda, MD, March 6, 1993
9. "High-Performance Computing Architectures, Algorithms, and Software Tools for Computational Chemistry and Molecular Modeling," 33rd Sanibel Symposium, St. Augustine, FL, March 15-16, 1993
10. "Overview of High Performance Computing Research at Argonne National Laboratory," High Performance Computing Symposium 1993: Grand Challenges in Computer Simulation, March 29, 1993
11. "High-Performance Computing Research at Argonne National Laboratory," The Conference on High Speed Computing, 1993: Massively Parallel Processing: An Assessment, March 31, 1993
12. (with K. Arnold and V. E. Taylor), "Performance of Parallel Molecular Dynamics on Touchstone Delta Using Three Implementation Techniques," Second Delta Applications Workshop, April 1993
13. "The Future of Parallel Processing: Clusters, MPP, and Nanotechnology," 1993 IBM Engineering and Technical Computing Executive Conference, Palm Harbor, FL, May 24, 1993
14. "The SP1: An Update," POWERparallel Systems Group, IBM, Kingston, NY, September 16, 1993
15. "Survey of High-Performance Computing Systems and Architectures," Australia National University, Canberra, October 3, 1993
16. "High-Performance Computing Research in the USA," Australia National University, Canberra, October 7, 1993
17. "High-Performance Computing Research in the USA," International Symposium on Highly-Advanced Computing 1993 (ISAC'93), Tokyo, Japan, November 9, 1993
18. "Multimedia Supercomputing: Science Television," Mardi Gras '94 Teraflop Computing Conference, February 10-12, 1994
19. "Trends in Computing and Their Impact on HEP," CHEP94 Conference, San Francisco, CA, April 21, 1994
20. "Argonne Program in HPCC Applications and Computer Science on the SP1," SUPER! 1994 Conference, Baton Rouge, LA, April 25, 1994
21. "Grand Challenges Project Support: Chemistry and Biology," DOE-OPA Review of Projects in the Computational Science Program, June 15, 1994
22. "Argonne's High-Performance Computing and Communications Research Program," Taipei, Taiwan, June 23, 1994
23. "Overview of Argonne's HPCC Program," IBM-Japan, Japan, June 27, 1994
24. "Argonne's SP1 Work," Japan Atomic Energy Research Institute, Tokyo, Japan, June 28, 1994
25. "General-Purpose Systems and Parallel Computer Development," Electro-Technical Laboratory, Tokyo, Japan, June 28, 1994
26. "MPPs vs. Vector Processor Systems," RIKEN, Tokyo, Japan, June 29, 1994
27. "Multimedia Supercomputing: The Use of Supercomputers to Drive High-Performance Multimedia Systems and Virtual Environments," 3rd International Symposium on High Performance Distributed Computing (HPDC-3), San Francisco, CA, August 3, 1994
28. "Supercomputing, CAVES, Multimedia Servers, and High-Performance I/O Systems to Support Collaborative Electronic Spaces," ESCC-DCCC Meeting, Newport News, VA, September 22, 1994
29. "Argonne Objectives and Directions," Northern Telecom, Nepean, Ontario, Canada, October 2-3, 1994
30. (with W. McCurdy), VIP Tour of the DOE Laboratories' Research Exhibits, Supercomputing '94, Washington, DC, November 17, 1994
31. "LabSpace: Developing the National Electronic Laboratory Infrastructure," Carnegie Mellon University, Pittsburgh, PA, December 2, 1994
32. "Fast Forward: Where 100 Mbps Is Not Enough Today," Network Interop '95, Las Vegas, NV, March 29, 1995

33. "Argonne Computing Overview," Special Briefing and Planning Session with Argonne and IBM RISC Systems Division, Austin, TX, July 11, 1995
34. "Welcome," PetaFLOPS Workshop, Bodega Bay, CA, August 14-23, 1995
35. "Virtual Environments: A New Approach to Doing Science," 1995 International Conference on Accelerator and Large Experimental Physics Control Systems (ICALEPCS 95), October 30, 1995
36. "Wide-Area Multimedia Supercomputing," RISC in 1995, Yorktown Heights, NY, November 7, 1995
37. "Engines That Drive Collaborative Experiments," High Energy Physics Lunch Seminar, November 14, 1995
38. "Advanced Wide Area Collaborative Computing Environments," ComNet '96, January 30, 1996
39. "Plans for Next Year," National High Performance Software Exchange (NHSE) Technical Meeting, Knoxville, TN, January 24-25, 1996
40. "Wide Area Multimedia Supercomputing," Physics Colloquium, Argonne National Laboratory, January 26, 1996
41. "Advanced Wide Area Collaborative Computing Environments," Mardi Gras Conference '96, Baton Rouge, LS, February 17, 1996
42. (with Tom DeFanti), "The I-WAY Experience," ARPA Networking PI Meeting, Charleston, SC, February 26, 1996
43. "Roadmap to the Demonstrations" DOE2000 Workshop, Reston, VA, March 6, 1996
44. "Framing the Questions," DOE2000 Workshop, Reston, VA, March 6, 1996
45. "DOE2000 Technologies," Energy Sciences Steering Committee (ESSC) meeting, Lawrence Berkeley National Laboratory, Berkeley, CA, May 1-3, 1996
46. "I-WAY Debriefing," Multi-Agency I-WAY Debriefing Meeting, National Science Foundation, Arlington, VA, May 3, 1996
47. (with T. DeFanti) "A Persistent Multiagency WAN Testbed," Committee on Information and Communications, Washington, DC, May 29, 1996
48. (with V. Taylor, T. Disz, and M. Papka), "Interactive Visualization of Supercomputer Simulations," tutorial, IEEE Virtual Reality Annual International Symposium, Santa Clara, CA, May 31, 1996
49. PetaFLOPS Summer Study on System Software, Bodega Bay, CA, June 17-21, 1996
50. "Network Management," Index Vanguard 1996 Conference, Irving, TX, July 23-25, 1996
51. (with I. Foster and M. Papka), "Tools for Distributed Collaborative Environments: A Research Agenda," IEEE International Symposium on High-Performance Distributed Computing (HPDC-5), Syracuse, NY, August 7, 1996
52. (with I. Foster and M. Papka), "Tools for Distributed Collaborative Environments: A Research Agenda," August 7, 1996
53. "UbiWorld: An Environment Integrating Virtual Reality," IEEE International Symposium on High-Performance Distributed Computing (HPDC-5), Syracuse, New York, August 8, 1996
54. (with T. DeFanti), "Toward a Persistent I-WAY" (keynote address), IEEE International Conference on Application-Specific Systems, Architectures and Processors (ASAP'96), Chicago, August 18-21, 1996
55. Virtual Reality Design Tools: Prototyping the Next Generation of Complex Information-based Products, Symposium on Virtual Reality in Manufacturing Research and Education, Urbana, IL, October 8, 1996
56. "Applications Status" (also co-chair), Tele-Immersion Workshop, Chicago, November 8, 1996
57. "Advanced Wide-Area Collaborative Computing Environments," IEEE Computer Society Chapter-Chicago Section, Lucent Technologies, Naperville, Illinois, November 14, 1996
58. "Interactive Visualization of Supercomputer Simulations," tutorial, Supercomputing'96, Pittsburgh, December 18, 1996
59. "Scheduling Issues on the SP: Are Things Getting Any Better?" discussion leader, Maui High-Performance Computing Center, Maui, January 6, 1997
60. "New Science Enabled by PetaFLOP Computing," AAAS 1997 Annual Meeting and Science Innovation Expo, Seattle, Washington, February 14, 1997
61. "High-Performance Computing Research in the USA," Exciting Challenge by the Computational Materials Design, Symposium on Computational Chemistry, Tokyo, February 18, 1997
62. "High-Performance and Parallel I/O Systems for Scientific Computing," SIAM ParaPro Conference, March 15, 1997
63. (with T. DeFanti), "Tele-Immersion, Better Than Being There," Information Sciences Institute/University of Southern California (ISI/USC), Los Angeles, CA, March 19, 1997
64. "UbiWorld: An Environment Integrating Virtual Reality, Supercomputing and Design," keynote speech, IPPS97 Conference, Geneva, April 1, 1997

65. "Argonne research in Gaze tracking," presentation at Solutions and Products (host J. Bouwens) and discussion of high-resolution projection systems using GazeTracker information, Amsterdam, April 3-4, 1997
66. "Hardware Projections for COTS-based Designs," PetaFLOPS Algorithms Workshop (PAL'97), Williamsburg, VA, April 13, 1997
67. "Algorithm Issues in Graphics and Virtual Reality," PetaFLOPS Algorithms Workshop (PAL'97), Williamsburg, VA, April 16, 1997
68. "Multimedia Delivery Options," COMDEX/Spring97, Atlanta, Georgia, June 3, 1997
69. "Collaborative and Virtual Environments to Support Large-Scale Computational Science" (invited talk), International Conference on Computer Aided Design of High-Temperature Materials, Sante Fe, August 1, 1997
70. (with T. Disz, I. Judson, and R. Olson), "The Argonne Voyager Multimedia Server," Sixth International Symposium on High Performance Distributed Computing (HPDC-6), August 6, 1997
71. (with M. Papka), "Advanced Visualization in Support of Materials Modeling and Design," Sante Fe, 1997
72. (with T. DeFanti), "Building the Grid," Beckman Institute, NCSA, Urbana, Illinois, September 18, 1997
73. "Using Immersive Virtual Reality for Visualizing and Modeling of Molecular Nanosystems," Fifth Foresight Conference on Molecular Nanotechnology, Palo Alto, Nov. 8, 1997
74. "White Paper on Computing Strategic Plan," DOE SLCCC Meeting, Arlington, VA, December 17, 1997
75. "Visualization" and "Grand Challenges," Large Scale Network (LSN) Workshop, Reston, VA, January 6-7, 1998
76. "Shared Virtual Reality," DOE2000 Retreat, Reston, VA, January 7, 1998
77. "Evaluation Criteria and Methodology" (invited presentation), "Projection Models" (panel discussion), "Applications and Evaluation" (breakout session) Third HTMT Project Meeting, Pasadena, January 12-14, 1998
78. "Three Dimensional Reconstruction from a Set of Video Cameras of Environments for Virtual Collaboration," ICASE Workshop on Computational Aerosciences in the 21st Century, April 22, 1998
79. "State of Enabling Technologies," Alliance '98, University of Illinois at Urbana-Champaign, April 28, 1998
80. "Technical Crosscutting," Organizing Committee Meeting, Department of Energy Strategic Simulation Initiative, Washington, DC, June 25, 1998
81. "CS/ET," Combustion Simulation Modeling Initiative Planning Workshop, Washington, DC, June 30, 1998
82. "Distributed Computing," FY99 Program Plan Review of the National Computational Science Alliance, Urbana, Illinois, September 2, 1998
83. "Argonne, Advanced Visualization Environments for the Next Century," Workshop on Advanced Materials for Extreme Environments: New Experimental Opportunities in Neutron Scattering, Argonne, Illinois, September 11, 1998
84. "Virtual Reality in the 21st Century," ICAP98, Monterey, California, September 18, 1998
85. "PITAC Scalable Infra Panel," Washington, DC, November 3, 1998
86. "Teleimmersion Applications," Middleware Workshop, Northwestern University, Chicago, IL, December 3-4, 1998
87. "Teleimmersion Application," NGI Info Exchange, Argonne, IL, December 16, 1998
88. "CFD and Volume Rendering," 5th HTMT Project Meeting, Los Angeles, CA, January 12, 1999
89. "Computer Science/Enabling Technology Management Plans," Management & Implementation Plans for the Scientific Simulation Initiative, Washington, DC, January 19, 1999
90. "Applications: Introduction," PETAFLOPS II Conference, Santa Barbara, CA, February 17, 1999
91. "Data Visualization Corridors," Frontiers, Annapolis, MD, February 23, 1999
92. "An Applications Perspective on Phase 3 System Software Efforts," HTMT System Software Workshop, La Jolla, CA, March 30-31, 1999
93. "Data and Collaboration," NSF/DOE Workshop on Large-Scale Visualization and Data Management, Salt Lake City, UT, May 20-22, 1999
94. "Applications Goals and Metrics for Applications Studies," HTMT Project Review, July 29, 1999
95. "Corridor One: An Integrated Distance Visualization Environment for SSI and ASCI Applications," Washington, DC, October 4, 1999
96. "Active Spaces: The Access Grid, Active Mural, and Advanced Visualization Systems," VIS'99, San Francisco, CA, October 29, 1999
97. "What's the Best Node for your Cluster?," American Physical Society March Meeting, Minneapolis, MN, March 20-23, 2000
98. "The Open Source Software Opportunity for High End Computing," HPC OSS Meeting, San Diego Supercomputer Center, San Diego, CA, March 23-25, 2000

99. "Some Hot Issues for the Millennium," International Parallel and Distributed Processing Symposium, The Ten Hottest Topics in Parallel and Distributed Computing for the Next Millennium, Cancun, Mexico, May 1-5, 2000
100. "Future Directions in Computer and Systems Architecture for Scientific Computing," Institute for Theoretical Atomic and Molecular Physics Workshop, Computation Challenges in Atomic and Molecular Physics, Boston MA, May 4-6, 2000
101. "ActiveSpaces: The Access Grid, Active Mural, and Advanced Visualization Systems," Industry Affiliates Program Day, University of California Davis, CA, May 19, 2000
102. "Thoughts on a Possible Institute for Computation and Communication," Princeton, June 28, 2000
103. "Large Scale Computing Systems and Group-Oriented Collaboration Infrastructure to Enable Computer Astrobiology," Computational Astrobiology" and "The Origins of Life," Monterey, CA, June 2, 2000
104. "Technology to enable Group to Group Collaborations via the Grid," Ninth Symposium on High Performance Distributed Computing (HPDC9), Pittsburgh, PA, Aug. 1-4, 2000
105. "Next-Generation Visualization Displays: The Research Challenges of Building Tiles Displays" IEEE Vis 2000, SLC, UT Oct 7-13, 2000

#### **PARTICIPATION IN MEETINGS, 1992-1999**

1. Program Committee Meeting, Workshop on System Software for HPC Environments, Washington, D.C., January 22, 1992
2. SCRI High Performance Computing and Grand Challenges in Structural Biology, Florida State University, Tallahassee, Florida, January 24-27, 1992
3. HPCC Show and Meeting with Intel Staff, Washington, D.C., February 4, 1992
4. CSC Applications Workshop and Policy Board Meeting, Pasadena, CA, February 10-12, 1992
5. Jet Propulsion Laboratory Supercomputing Visualization Workshop, Pasadena, CA, February 13-15, 1992
6. Scalable I/O Research with Paul Messina, Caltech, Pasadena, CA, February 16, 1992
7. HPCC discussions with DARPA, Arlington, VA, February 25, 1992
8. CRPC meeting, Georgetown, MD, March 1-2, 1992
9. Project meeting, San Francisco, March 2, 1992
10. Presentation by IBM, Kingston, NY, March 4, 1992
11. CHAMMP Science Team meeting, Las Vegas, NV, March 15-18, 1992
12. Convex Computer Corporation, Dallas, Texas, March 25-26, 1992
13. Workshop on Systems Software, Jet Propulsion Laboratory, Pasadena, CA, April 14-17, 1992
14. Meeting with OHER staff, Germantown, MD, May 4, 1992
15. Meeting with Applied Mathematical Science Principal Investigators, Alexandria, VA, May 5-8, 1992
16. Conference on High Speed Computing, Salishan, Oregon, May 11-17, 1992
17. Intel Grand Challenge Award, Pasadena, CA, May 26, 1992
18. Critical Technologies Workshop, Berkeley, CA, May 27-June 6, 1992
19. HPC-RC Proposal discussions with SCS and IBM, Germantown, MD, May 21-22, 1992
20. Discussions with DOE, Washington, D.C., July 20, 1992
21. IBM software collaboration, Kingston, NY, July 21, 1992
22. CSCC Policy Board Meeting, Beaverton, Oregon, August 5-6, 1992
23. Committee to draft a new HPCC Bluebook, Livermore, CA, August 16-17, 1992
24. Discussion of DOE collaboration with NASA, Washington, D.C., August 24-26, 1992
25. Genome Project Meeting with David Smith, Germantown, MD, September 1, 1992
26. Executive Committee meeting, Houston, Texas, October 15-16, 1992
27. CSCC Policy Board meeting, McLean, VA, October 19-21, 1992
28. San Diego Supercomputing Center, La Jolla, CA, October 25-27, 1992
29. Genome Project Meeting with David Smith and Marvin Stodolsky, Germantown, MD, November 5-6, 1992
30. Progress report on porting p4 to the SMP, Beaverton, Oregon, November 8-9, 1992
31. Supercomputing '92, Minneapolis, MN, November 15-20, 1992
32. Meeting with Tony Macina regarding Crada Statement of Work, Houston, Texas, November 30, 1992
33. Discussion about collaboration with NASA-Lewis, Cleveland, Ohio, December 14, 1992
34. Meeting with Bill Dally, Cambridge, MA, December 15, 1992
35. Program Committee Meeting at NASA, Washington, D.C., December 16, 1992
36. Meeting with Brian Boesch and Gil Weignad, DARPA, Arlington, VA, December 17-18, 1992
37. CSCC Policy Board Meeting, Caltech, Pasadena, CA, January 6-7, 1993
38. Supercomputing '93 Program Committee Meeting, Dallas, Texas, January 12-13, 1993

39. Scalable I/O meeting, Caltech, Pasadena, CA, January 20, 1993
40. Scientific Computing Staff meeting regarding HPCC, Germantown, MD, January 22, 1993
41. CRPC Research Symposium and Annual Meeting, January 26-28, 1993
42. DOE Education Working Group, Washington, D.C., January 29, 1993
43. DOE/OSC Applied Mathematics Workshop, Albuquerque, NM, February 3-5, 1993
44. HPSSL Technical Advisory Board meeting, Kingston, NY, February 10, 1993
45. PNL/ANL workshop, Seattle, WA, February 11-12, 1993
46. Collaboration with Paul Messina, Caltech, Pasadena, CA, February 15, 1993
47. I/O Initiative white paper, DARPA, NSF, and NASA review, Arlington, VA, February 23, 1993
48. CSCC Policy Board Meeting, Caltech, Pasadena, CA, March 4, 1993
49. NCHPC Working Group Meeting, San Diego, April 21, 1993
50. Collaboration with Paul Messina, Caltech, Pasadena, CA, April 22, 1993
51. CSSS Policy Board Meeting, Washington, D.C., April 28, 1993
52. HPCC-APPS Workshop, Program Chairman, Pittsburgh, PA, May 2-3, 1993
53. Workshop on GC Applications and Software Technology and Conference, Pittsburgh, PA, May 4-7, 1993
54. Coordinating Committee for Informatics Research, Development, and Application (CCIRDA), Reston, VA, May 13, 1993
55. Scalable I/O Project, Caltech, Pasadena, CA, June 3-4, 1993
56. IBM HPSSL Kingston Technical Advisory Board Meeting, Kingston, NY, June 9, 1993
57. June SC'93 Program Committee Meeting, Portland, Oregon, June 14-15, 1993
58. Coordinating Committee for Informatics Research, Development, and Application (CCIRDA) Futures Vision/Planning Meeting, Salt Lake City, Utah, June 25, 1993
59. U.S. DOE Workshop on Information Infrastructure Technology and Applications, July 22-23, 1993
60. Policy Board Meeting, Caltech, Pasadena, CA, July 29-30, 1993
61. SIGGRAPH '93 VROOM, Anaheim, CA, August 1-6, 1993
62. Meeting on IBM product update, Kingston, NY, September 15-17, 1993
63. Meeting on Manufacturing Applications of Virtual Reality Meeting, Allied Signal, Kansas City, MO, September 22, 1993
64. ARPA HPC Software PI Meeting, San Diego, September 27, 1993
65. Computer-Aided Design of Molecular Systems, Palo Alto, October 13-16, 1993
66. Meeting, National Storage Laboratory, IBM FSD Headquarters, Bethesda, MD, October 19, 1993
67. HPSSL TAB Meeting, IBM Kingston, Kingston, NY, November 3-4, 1993
68. Participant, Japanese Society of Mechanical Engineering, International Symposium on Highly-Advanced Computing 1993 (ISAC'93), Tokyo, Japan, November 10, 1993
69. Supercomputing '93, Portland, Oregon, November 15-19, 1993
70. DOE Workshop on "Distributed Collaborative Research Environments – Plans and Metrics for Making Progress," CEBAF, Newport News, VA, December 6-7, 1993
71. Review of NSF Center activities and plan for upcoming year, Pittsburgh, PA, December 13, 1993
72. Argonne-IBM briefing, Austin, Texas, December 14, 1993
73. Meeting on the National Energy Modeling System (NEMS), Baltimore, MD, January 11, 1994
74. Workshop on Parallel I/O, Dallas, Texas, January 20-21, 1994
75. IBM Systems Management Meeting, Kingston, NY, January 24, 1994
76. CRPC Annual Meeting and Symposium, Pasadena, CA, January 25-27, 1994
77. Meeting at Lawrence Livermore National Laboratory, Livermore, CA, January 29, 1994
78. NASA briefing, Washington, D.C., February 1, 1994
79. Coordinating Committee for Informatics Research, Development, and Application (CCIRDA), Washington, D.C., February 10, 1994
80. Workshop on Enabling Technologies for PetaFLOPS Computing Systems, Pasadena, CA, February 22-24, 1994
81. National Institute of Standards and Technology NII Symposium, Gaithersburg, MD, February 28-March 1, 1994
82. Discussions on multimedia and digital libraries with Cray, Eagan, MN, March 11, 1994
83. HPCC Symposium, Alexandria, VA, March 15-18, 1994
84. DOE briefing on ANL/Russian collaboration, Washington, D.C., March 25, 1994
85. IBM Technical Advisory Board (TAB) meeting, Kingston, NY, April 7-8, 1994
86. HPCC'94, chair, session on I/O Intensive Supercomputing Applications, LaJolla, April 12, 1994
87. Meeting on the DOE HPCC/NII strategy for 1996 and beyond, Chicago, April 14-15, 1994
88. CCIRDA Meeting, Arlington, VA, May 12, 1994

89. Program Planning Meeting for Proposed Intelligent Energy Systems Program, National Renewable Energy Laboratory, Washington, D.C., May 24, 1994
90. SC'95 Program Committee Meeting, Washington, D.C., June 14, 1994
91. Academia Scientifica, Taipei, Taiwan, June 23-24, 1995
92. BIO Research Training Group evaluation, Rice University, Houston, Texas, July 10-11, 1994
93. Industrial Computing Steering Committee meeting, Washington, D.C., July 19, 1994
94. SIGGRAPH94, Orlando, Florida, July 23-28, 1994
95. DCRE collaboration discussions, Xerox PARC, Palo Alto, CA, August 8, 1994
96. High-performance computing collaboration discussions, Lawrence Livermore National Laboratory, Livermore, CA, August 9-10, 1994
97. Pacific Bell Meeting, San Ramon, CA, August 19, 1994
98. SIO Meeting at Intel SSD, Beaverton, Oregon, September 16, 1994
99. IBM/ACM Industry Advisory Board Meeting, Seattle, WA, September 18-20, 1994
100. DOE Accelerated Strategic Computing Initiative (ASCI), Santa Fe, NM, September 28-29, 1994
101. IBM Technical Advisory Board (TAB), Kingston, NY, October 28, 1994
102. Coordinating Committee for Informatics Research, Development, and Application (CCIRDA), Washington, D.C., October 11, 1994
103. Pacific-Bell Meeting, San Ramon, CA, August 19, 1994
104. Supercomputing '95 discussions, Livermore, CA, August 19, 1994
105. Scalable I/O Executive Committee, Rice University, Houston, Texas, August 24, 1994
106. External Review Committee Meeting, Los Alamos National Laboratory, Los Alamos, NM, October 25-26, 1994
107. 5th Gigabit Testbed Workshop, Reston, VA, November 2-4, 1994
108. Supercomputing '94 discussions, Washington, D.C., November 12-19, 1994
109. DOE/NEC/EPRI Workshop, Arlington, VA, December 6-7, 1994
110. NIST Meeting and I-WAY '95 Workplan, Gaithersburg, MD, December 9, 1994
111. CSCC Policy Board Meeting and SIO Meeting, Caltech, Pasadena, CA, December 12-14, 1994
112. Second Pasadena Workshop on System Software and Tools for High-Performance Computing Environments, Pasadena, CA, January 9-12, 1995
113. SC'95 Information Architecture Subcommittee, Marco Island, Florida, January 15-16, 1995
114. NSTC briefing to DOE Office of Science, Education, and Technology Information, Washington, D.C., January 19, 1995
115. SCinet95 debriefing, Berkeley, CA, February 1-2, 1995
116. San Diego Conference Center meeting regarding Supercomputing '95, San Francisco, February 3-4, 1995
117. DOE DP/ER NII Workshop, Arlington, VA, February 6, 1995
118. Review of the National High Performance Software Exchange, NASA Headquarters, Washington, D.C., February 10, 1995
119. LabSpace meeting, Boston, MA, February 17, 1995
120. OSC Network Research and Development/Scalable I/O Workshop, Herndon, VA, February 27-March 1, 1995
121. Review of Jet Propulsion Laboratory supercomputing, Pasadena, CA, March 7-8, 1995
122. CRPC Annual Review and CRPC Executive Committee meeting, Houston, Texas, March 22-24, 1995
123. Accelerated Strategic Computing Initiative Workshop, Arlington, VA, April 11-13, 1995
124. Information Infrastructure Task Force Demonstration, Monterey Bay Aquarium Research Institute, Monterey, CA, April 21, 1995
125. 1995 Conference on High Speed Computing (Salishan Conference), participant in panel discussion, "Allocating Computational Resources at the National Laboratories," April 25, 1995
126. ESnet Steering Committee Meeting, April 26, 1995
127. Distributed Computing Experiments Environment Kickoff Meeting, Berkeley, CA, May 11-12, 1995
128. Scalable I/O Project meeting, Pasadena, CA, May 8-10, 1995,
129. DOE Information and Communications Technologies Workshop, Washington, D.C., May 16-18, 1995
130. LabSpace discussions, Boston, MA, May 18, 1995
131. Communication on Information and Communications R&D of the National Science and Technology Council, National Coordination Office, Bethesda, MD, July 6-7, 1995
132. ESSC Meeting and Steering Committee Meeting, Napa Valley Marriott, Napa, CA, July 20-21, 1995
133. Preparation for PetaFLOPS Summer Workshop, Bodega Bay, CA, July 22, 1995
134. High-Performance Computing Access Center Best and Final Review, Sterling, VA, July 26, 1995
135. Supercomputing'95 Executive Committee Meeting, San Diego, CA, August 24-25, 1995

136. National Center for Supercomputer Applications, Urbana, IL, October 4, 1995
137. Center for Research for Parallel Computation Executive Committee Retreat, Colorado Springs, CO, October 5-6, 1995
138. Los Alamos National Laboratory Computing Information and Communications External Review Committee, Albuquerque, NM, October 10-11, 1995
139. CCIRDA Meeting, Washington, D.C., November 6, 1995
140. Fourth Foresight Conference on Molecular Nanotechnology, Palo Alto, CA, November 9-11, 1995
141. DOE2000 Workshop, Washington, D.C., November 20-21, 1995
142. Supercomputing '95, San Diego, CA, November 28-December 8, 1995
143. WEB Operations Site for SuperBowl '96, Phoenix, January 26-28, 1996
144. IBM Technical Advisory Board (TAB) Meeting, Poughkeepsie, NY, February 6-7, 1996
145. CRPC Executive Committee Meeting, Houston, Texas, February 29-March 1, 1996
146. Distributed Collaborative Experiments Environment (DCEE) and Distributed Informatics, Computing and Collaborative Environment (DICCE) meeting, March 4-5, 1996
147. DOE2000 Workshop (organizer), Reston, VA, March 6-7, 1996
148. R&D Integration Meeting, Reston, VA, March 12-13, 1996
149. "Motivations and Thought Experiments for Distributed Wide Area Heterogeneous Computing," keynote address, Tenth International Parallel Processing Symposium, Honolulu, April 15-19, 1996
150. 5th Workshop on Heterogeneous Computing panel discussion, Honolulu, April 16, 1996
151. PetaFLOPS Architecture Workshop (PAWS 96), Oxnard, CA, April 22, 1996
152. Internet Privacy and Security Workshop (moderator), Federal Networking Council, Westford, MA, May 20-21, 1996
153. PetaFLOPS Meeting, Washington, D.C., August 5, 1996
154. R. Stevens, "Advanced Wide-Area Collaborative Computing Environments," IEEE International Conference on Application-Specific Systems, Architectures and Processors, keynote address, August 1996
155. NCSA Meeting on NSF Proposal Program Solicitation for Partnerships for Advanced Computational Infrastructure (PACI), Urbana, Illinois, August 14-16, 1996
156. PetaFLOPS Briefing, Arlington, VA, August 28, 1996
157. Energy Sciences Steering Committee (ESSC) Meeting, Ft. Collins, Colorado, September 11-13, 1996
158. Coordination Council for Information and Communications (CCIC) – PetaFLOPS Initiative, Arlington, VA, September 19, 1996
159. DOE2000 Strategy Workshop, McLean, VA, September 26-27, 1996
160. Partnership Opportunities Meeting, Newbridge Networks Corporation, Ottawa, Ontario, October 4, 1996
161. PACI CS Teams Meeting, Champaign, IL, October 9-11, 1996
162. Workshop on Software Tools for High-Performance Computing Systems, Chatham, MA, October 15-18, 1996
163. NERSC dedication, Berkeley, CA, October 21, 1996
164. ANL/Lawrence Berkeley National Laboratory/IBM meeting, Poughkeepsie, NY, November 4-5, 1996
165. DOE2000 Collaboratory R&D PI's Meeting, Reston, VA, November 10, 1996
166. CRPC Future Directions Meeting and Executive Committee Meeting, Pittsburgh, PA, November 17, 1996
167. SC'96 Conference Judges and Challengers Organization Meeting, Pittsburgh, PA, November 18, 1996
168. MICS PI's Meeting, Supercomputing '96, Pittsburgh, PA, November 18, 1996
169. Scalable I/O Executive Committee Meeting, Supercomputing '96, Pittsburgh, PA, November 19, 1996
170. IBM/Maui/Argonne Technical Meeting, Supercomputing '96, Pittsburgh, PA, November 19, 1996
171. IBM Technical Advisory Board (TAB) Meeting, Supercomputing '96, Pittsburgh, PA, November 20, 1996
172. DOE2000 Collaboratory meeting, Supercomputing '96, Pittsburgh, PA, November 21, 1996
173. PETA core meeting, Supercomputing '96, Pittsburgh, PA, November 21, 1996
174. Meeting with scientific staff at ISI/USC, Los Angeles, CA, December 5-6, 1996
175. R&D meeting, IBM Almaden Research Center, San Jose, CA, January 24, 1997
176. ANL/LBL/SGI meeting, Mountain View, CA, January 27, 1997
177. PetaFLOPS Workshop, La Jolla, CA, January 28-29, 1997
178. CRPC executive committee meeting, La Jolla, CA, January 30, 1997
179. Retirement luncheon for J. Cavallini, Gaithersburg, Maryland, February 6, 1997
180. DOE2000 Collaboratory Workshop, Berkeley, CA, February 25, 1997
181. "Hybrid Technology Multithreaded Architecture for Very High Performance Computing, participation in session Application Programming," Caltech and NASA Jet Propulsion Laboratory, February 26, 1997
182. DOE2000 briefing and demo, Washington, D.C., March 5, 1997

183. Meeting with Michael McRobbie, Bloomington, Indiana, March 26, 1997
184. Meeting with Habanero development team, NCSA, Urbana, Illinois, April 10, 1997
185. Participation in Next Generation Internet (NGI) Workshop, Vienna, VA, May 12-15, 1997
186. Energy Sciences Steering Committee meeting, Los Angeles, May 7-9, 1997
187. "Enabling Technologies Team," participation in session in NCSA All-Hands Meeting, Champaign, Illinois, May 14-16, 1997
188. High Bandwidth Applications," ``Next Generation Applications," and "Education and Conferencing: From Cable to Web," panel sessions, INET'97, Kuala Lumpur, June 25-26, 1997
189. "Collaborative Virtual Environments," Birds of a Feather session, Supercomputing'97, San Jose, November 18, 1997
190. HTMT Architecture Workshop, South Bend, Indiana, December 2-4, 1997
191. DOE-ER 2020 Meeting, Chantilly, VA, January 9-10, 1998
192. DOE-ER Computing Initiative, Oak Ridge National Laboratory, March 26-27, 1998
193. Workshop, DOE-ER Computing, Washington, D.C., March 25-27, 1998
194. PACS meeting and PACS Executive Meeting, Albuquerque, NM, April 8-9, 1998
195. Meeting re. AVTC Project, University of Utah, Salt Lake City, Utah, April 20, 1998
196. Meeting re. AVTC Project, University of Utah, Salt Lake City, Utah, April 20, 1998
197. ESnet Review and ESSC meeting, Berkeley, California, May 3-7, 1998
198. Futures Lab Retreat, Lake Geneva, WI, May 4-6, 1999
199. Caltech VDC Planning Retreat, Norfolk, Virginia, May 18-21, 1998
200. Strategy and Vision for R&D, Cisco Systems, San Jose, June 26, 1998
201. Wye Data and Visualization Corridors review, Aspen Institute Wye River Conference Center, Maryland, July 5-8, 1998
202. HTMT Workshop, Princeton, New Jersey, July 14-16, 1998
203. "Why Grids? Future Grid Applications," panel session (chair), Grids'98, Chicago, July 27-28, 1998
204. Technology Working Group, DOE/NSF National Workshop on Advanced Scientific Computation, National Academy of Sciences, Washington, DC, July 30-31, 1998
205. "Performance Evaluation," panel session (chair), 11th International Conference on Parallel and Distributed Computing Systems, Chicago, IL, September 4, 1998
206. DOE/NSF Corridors at a Distance Workshop, December 7-9, 1998
207. ACTS Toolkit Workshop, Reston, VA, January 5-6, 1999
208. ESNet Steering Committee Meeting, Washington, DC, January 12, 1999
209. Convener, Focus Group on Experiments, 5th HTMT Project meeting, Los Angeles, CA, January 14, 1999
210. Alliance Executive Committee Meeting, Washington, DC, January 15-16, 1999
211. Scientific Simulation Initiative - Discussions and Planning, Washington, DC, January 19, 1999
212. NCSA Building Discussions, University of Illinois, Champaign-Urbana, IL, February 5, 1999
213. Scientific Simulation Initiative - CSET Discussions and Planning, Washington, DC, February 9, 1999
214. Panel Session, "Impact and Challenges for Petaflops-scale Applications," PETAFLIPS II Conference, Santa Barbara, CA, February 18, 1999
215. Panel Session "A Report of the Findings from the Third Workshop on Petaflops," Frontiers, Annapolis, MD, February 23, 1999
216. SCI Alliance Centers PI Meeting, Pasadena, CA, March 1-2, 1999
217. Data Visualization Corridor Meeting, Pasadena, CA, March 3-5, 1999
218. First Grid Forum Workshop, NASA Ames Research Center, Moffett Field, CA, May 16-18, 1999
219. Life Science Research at Argonne, OBER, Washington, DC, March 17, 1999
220. DVC Workshop, Salt Lake City, UT, May 22, 1999
221. Computing Sciences Directors Meeting/Review, Berkeley, CA, May 25-26, 1999
222. Barriers Workshop, Jackson Hole, WY, June 2-4, 1999
223. USENIX 1999 Technical Conference technical sessions, Monterey, CA, June 9-11, 1999
224. Supercomputing 99 Planning Meeting, Portland, OR, June 15, 1999
225. NSF Site Review, Ballston, VA, July 18-22, 1999
226. High-End Systems Software Meeting, Santa Monica, CA, August 3, 1999
227. DOE Office of Science Cluster Computing Review/Planning Meeting, Santa Monica, CA, August 3, 1999
228. CRPC Book review Meeting, Arlington, VA, October 6, 1999
229. HTMT Update, DOE Headquarters, Washington, DC, October 13, 1999
230. SC99 Committee Member meeting, Portland, OR, November 13-19, 1999

- 231. External Advisory Board of the Deep Computing Institute, Tarrytown, New York, November 30-December 1, 1999
- 232. Alliance Executive Committee Meeting, Arlington, VA, January 27-28, 2000
- 233. ASCI ASAP Frameworks Integration Workshop, University of Utah, Salt Lake City, Utah, February 10-11, 2000
- 234. HPS Open Source Roadmap Meeting, Argonne, IL, Feb. 17-18, 2000
- 235. ASCI Display Workshop, La Jolla, February 24-25, 2000
- 236. VA Linux Conference, San Francisco, March 1, 2000
- 237. Microsoft Research meeting: Possible collaborative ventures, Seattle, March 2, 2000
- 238. Terascale Proposal Meeting, University of Illinois, Champaign-Urbana, March 7, 2000
- 239. Advanced Workshop on High Performance Computing Technology and Applications, Cetraro, Italy, June 12-15, 2000
- 240. IGRID/INET 2000, Yokohama, Japan, July 18-21, 2000
- 241. 8th IEEE International Symposium on HPDC, Redondo Beach, California, August 3-6, 1999
- 242. DOE-Bio 2 Workshop, Oracle, AZ, August 31-September 1, 2000